

TROPICAL RAINFALL MEASURING MISSION

May 22, 2000 - May 28, 2000

DOY 143 - 149

Day of Mission 906 - 912

TRMM MISSION OPERATIONS

- TRMM is flying in the -X Forward direction as of 00-140, at 22:31:41z.
- Yaw maneuver #42 is scheduled for June 3rd (00-155).
- Delta-V maneuver #198 is scheduled for May 30th (00-151), using the ISP thrusters.
- The Beta angle range for 00-150 through 00-156 is -12.8° to +5.1°.
- The next Monthly Status Review is scheduled for June 7th (00-159).
- The next CCB meeting is scheduled for June 19th (00-171).

TRMM SUBSYSTEM OPERATIONS

Attitude Control System (ACS)

Delta-V maneuver #196 was successfully conducted on 00-143 at 15:32:16z and 16:18:02z for durations of 38.125 and 22 seconds respectively, using the ISP thrusters. The off-modulation of the -Pitch thruster (#6) for burn 1 and 2 was 38.7% and 36.4% (61.3% and 63.6% on time). The remaining fuel is 576.423 kg, and the final apogee and perigee height is 354.88 km x 347.34 km.

Delta-V maneuver #197 was successfully conducted on 00-147 at 15:29:50z and 16:16:11z for durations of 51.750 and 35.250 seconds respectively, using the ISP thrusters. The off-modulation of the -Pitch thruster (#6) for burn 1 and 2 was 36.7% and 35.1% (63.3% and 64.9% on time). The remaining fuel is 574.394 kg, and the final apogee and perigee height is 354.84 km x 347.54 km.

Flight Data System (FDS)/Command & Data Handling (C&DH)

The current frequency standard offset remains x'796' with a current drift rate of -0.403 μ s/hr. The UTCF remains 31535996.843867 seconds with a current drift value of +114 μ s.

Q-channel restarts occurred on 00-145 at 01:07:03z, on 00-146 at 16:39:09z and 23:12:54z, and on 00-149 at 21:17:24z.

An Invalid Stream Id from XS message occurred on 00-148 at 06:44:56z due to VIRS.

Reaction Control Subsystem (RCS)

The RCS subsystem performed nominally during this period. See the ACS section for specific Delta-V information.

Power Subsystem

The Power subsystem is operating nominally. The Battery 2 End of Day State of Charge has temporarily dipped below the Low Yellow value of 98% as predicted for the week due to the current low solar beta angle range.

Electrical Subsystem

The Electrical subsystem operated nominally during this period.

Thermal Subsystem

The Thermal subsystem operated nominally during this period.

Deployables Subsystem

The Deployables subsystem performed nominally during this period.

RF/Communications Subsystem

The RF/Communications subsystem performed nominally during this period.

SPACECRAFT INSTRUMENTS

CERES

CERES testing continued this week. On 00-143 gimbal testing continued (CR #363), and on 00-143 the total sensor controller was briefly powered off (CR #364) to try and characterize the affects on instrument noise levels.

LIS

LIS performed nominally during this time period.

PR

PR performed nominally during this time period.

The list of Internal Calibration times over Australia in which PR was not radiating is below:

2000/143:21:12:34 - 21:14:46z
2000/144:13:32:30 - 13:35:31z
2000/144:21:35:42 - 21:37:49z
2000/145:20:24:11 - 20:26:22z
2000/146:12:41:58 - 12:47:03z
2000/146:20:47:10 - 20:48:56z
2000/147:19:35:04 - 19:37:13z
2000/148:11:53:09 - 11:57:32z

2000/148:18:23:39 - 18:25:53z
2000/149:18:46:22 - 18:48:30z

TMI

TMI performed nominally during this time period.

VIRS

VIRS performed nominally during this time period.

GROUND SYSTEM

Testing of MOC release 8.1 is complete on String 3 with no significant problems found.

Event Reports

No new Event Reports were generated during this period.

Generic Late Acquisition Reports (for TTRs 19639)

No Generic Late Acquisitions occurred during this period.

New Anomaly

No new Anomalies occurred during this period.

Recurring Open Anomalies

No Open Anomalies recurred during this period.

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